

AD-A037 938 ARMY ELECTRONICS COMMAND WHITE SANDS MISSILE RANGE N--ETC F/G 4/2
15002A LITTLE JOHN MISSILE NUMBER 1936, ROUND NUMBER 722 RG (7 --ETC(U)
DEC 76

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December 1976

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P.S.

METEOROLOGICAL DATA REPORT

15002A LITTLE JOHN
MISSILE NO. 1936, ROUND NO. 722 RG
(7 December 1976)

BY

WSMR METEOROLOGICAL TEAM

DDC
REF ID: A
APR 8 1977
A

ATMOSPHERIC SCIENCES LABORATORY
WHITE SANDS MISSILE RANGE, NEW MEXICO

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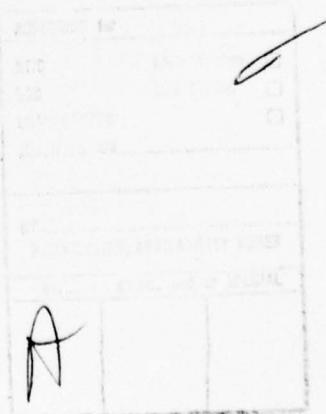
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INTRODUCTION

15002A Little John, Missile Number 1936, Round Number 722 RG, was launched from L-306, White Sands Missile Range (WSMR), New Mexico, at 1340 HRS MST, 7 December 1976. The scheduled launch time was 1330 HRS MST.

DISCUSSION

Meteorological data were recorded and reduced by the WSMR Meteorological Team, Atmospheric Sciences Laboratory (ASL), WSMR, New Mexico. The data are presented in the following tabulations.

ELEVATION	4,005.0	FEET/MSL
PRESSURE	882.0	MBS
TEMPERATURE	11.0	°C
RELATIVE HUMIDITY	53	%
DEW POINT	1.7	°C
DENSITY	1,075.9	GM/M ³
WIND SPEED	04	MPH
WIND DIRECTION	180	DEGREES
CLOUD COVER	3	Ci

TABLE I. SURFACE OBSERVATIONS TAKEN AT L-306,
1340 HRS MST/7 DECEMBER 1976.

T-TIME (MIN-SEC)	SPEED (MPH)	DIR DEG	T-TIME (MIN-SEC)	SPEED (MPH)	DIR DEG	T-TIME (MIN-SEC)	SPEED (MPH)	DIR DEG
-5.00	3.0	132	-0 9.5	5.0	180	-0 0.50	5.0	181
-4.30	4.0	131	-0 9.0			-0 0.25		
-4.00	6.0	151	-0 8.5			0 0.00		
-3.30	4.0	154	-0 8.0			+0 0.25		
-3.00	5.0	151	-0 7.5			+0 0.50		181
-2.30	8.0	183	-0 7.0			+0 0.75		182
-2.00	7.0	183	-0 6.5			+0 1.00		182
-1.45	6.0	175	-0 6.0			+0 1.25		182
-1.30	7.0	173	-0 5.5			+0 1.50		183
-1.15	6.0	171	-0 5.0			+0 1.75		
-0.60		171	-0 4.5		180	+0 2.00		
-0.55		172	-0 4.0		181	+0 2.25		
-0.50		180	-0 3.5			+0 2.50		
-0.45	6.0		-0 3.0			+0 2.75		
-0.40	4.0		-0 2.5			+0 3.00		
-0.35	4.0		-0 2.0			+0 3.25		
-0.30	6.0		-0 1.75			+0 3.50		183
-0.25	6.0		-0 1.50			+0 3.75		186
-2.20	6.0		-0 1.25			+0 4.00		186
-0.15	5.0		-0 1.00			+0 4.25		174
-0.10	5.0	180	-0 0.75	5.0	181	+0 4.50	5.0	174

TABLE II. ANEMOMETER-MEASURED WIND SPEED AND DIRECTION, POLE NO. 1
15002A LITTLE JOHN, MISSILE NO. 1936, ROUND NO. 722 RG
LAUNCHED FROM L-306, 1330 MST/7 DECEMBER 1976

WSTM COORDINATES: X = 468,607.93 Y = 438,513.71 Z = 4,005.00

NOTE: WIND DIRECTION DATA ARE REFERENCED TO THE FIRING AZIMUTH 170.0°.

T-TIME (MIN-SEC)	SPEED (MPH)	DIR DEG	T-TIME (MIN-SEC)	SPEED (MPH)	DIR DEG	T-TIME (MIN-SEC)	SPEED (MPH)	DIR DEG
+0 4.75	5.0	174	+0 10.00	5.0	174	+0 20.50	4.0	173
+0 5.00			+0 10.50	4.0		+0 21.00	4.0	
+0 5.25			+0 11.00			+0 21.50	4.0	
+0 5.50			+0 11.50			+0 22.00	4.0	
+0 5.75			+0 12.00			+0 22.50	3.0	
+0 6.00			+0 12.50			+0 23.00		
+0 6.25			+0 13.00			+0 23.50		
+0 6.50			+0 13.50			+0 24.00		
+0 6.75			+0 14.00			+0 24.50		
+0 7.00			+0 14.50			+0 25.00	3.0	
+0 7.25			+0 15.00			+0 25.50	2.0	
+0 7.50			+0 15.50			+0 26.00		
+0 7.75			+0 16.00			+0 26.50		
+0 8.00			+0 16.50		174	+0 27.00		
+0 8.25			+0 17.00		173	+0 27.50		
+0 8.50			+0 17.50			+0 28.00		
+0 8.75			+0 18.00			+0 28.50		173
+0 9.00			+0 18.50			+0 29.00		171
+0 9.25			+0 19.00			+0 29.50		170
+0 9.50			+0 19.50			+0 30.00	2.0	169
+0 9.75	5.0	174	+0 20.00	4.0	173			

TABLE II. (CONT)

NOTE: WIND DIRECTION DATA ARE REFERENCED TO THE FIRING AZIMUTH 170.0°.

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)	HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
SUR	222	3.0	2100	192	7.0
100	217	2.0	2200	192	7.0
200	224	1.0	2300	192	7.0
300	222	2.0	2400	192	5.0
400	210	2.0	2500	188	9.0
500	208	2.0	2600	183	12.0
600	206	2.0	2700	179	15.0
700	203	3.0	2800		16.0
800	200	4.0	2900		17.0
900	196	5.0	3000		17.0
1000	193	6.0	3100	179	18.0
1100	193		3200	180	19.0
1200	194		3300	180	20.0
1300	194		3400	180	21.0
1400	195		3500	181	22.0
1500	194		3600	181	22.0
1600	192		3700	181	23.0
1700	191		3800	182	24.0
1800	191	6.0	3900	182	25.0
1900	191	7.0	4000	CROSSED BASE LINE	
2000	191	7.0			

TABLE III. PILOT-BALLOON-MEASURED WIND DATA, RELEASE NO. 1
RELEASED FROM L-306, AT 1330 MST/7 DECEMBER 1976
15002A LITTLE JOHN, MISSILE NO. 1936, ROUND NO. 722 RG

PIBAL RELEASE POINT WSTM COORDINATES:

X = 467,067.46 Y = 440,662.81 Z = 3,997.06

NOTE: WIND DIRECTION DATA ARE REFERENCED TO THE FIRING AZIMUTH 170.0°.

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)	HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
SUR		CALM	2100	343	12.0
100	053	2.0	2200	340	15.0
200	053	3.0	2300	337	18.0
300	053	5.0	2400	335	22.0
400	053	7.0	2500	334	25.0
500	056	7.0	2600	333	28.0
600	063	6.0	2700	332	31.0
700	073	5.0	2800	331	34.0
800	082	4.0	2900	331	35.0
900	066	4.0	3000	332	36.0
1000	048	4.0	3100	332	36.0
1100	033	4.0	3200	332	36.0
1200	025	5.0	3300	332	37.0
1300	020	5.0	3400	331	37.0
1400	016	6.0	3500	330	37.0
1500	013	6.0	3600	330	36.0
1600	006	7.0	3700	329	36.0
1700	360	7.0	3800	328	35.0
1800	356	8.0	3900	328	35.0
1900	350	9.0	4000	328	35.0
2000	346	11.0	4100	328	35.0

TABLE IV. PILOT-BALLOON-MEASURED WIND DATA, RELEASE NO. 1
RELEASED FROM D 3 1/2, AT 1340 MST/7 DECEMBER 1976
15002A LITTLE JOHN, MISSILE NO. 1936, ROUND NO. 722 RG

PIBAL RELEASE POINT WSTM COORDINATES:

X = 443,023.73 Y = 388,397.95 Z = 3,972.63

APPROXIMATELY: 7 1/2 MILES SOUTHWEST OF LAUNCHER.

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
4200	329	35.0
4300	330	
4400	331	
4500	332	
4600	334	
4700	336	35.0
4800	338	36.0
4900	340	35.0
5000	342	35.0
5100	334	34.0
5200	336	34.0
5300	347	32.0
5400	348	31.0
5500	349	30.0
5600	349	29.0

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
5700	350	28.0
5800	350	27.0
5900	350	26.0
6000	350	25.0
6100	351	24.0
6200	350	25.0
6300	350	25.0
6400	350	26.0
6500	350	27.0
6600	349	28.0
6700	349	29.0
6800	348	29.0
6900	346	29.0
7000	345	29.0

TABLE IV. (CONT)

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

STATION ALTITUDE 4051.00 FEET MSL
 7 DEC. 76 1000 HRS MST
 ASCENSION NO. 196

SIGNIFICANT LEVEL DATA
 3420030396
 JALLEN
 TABLE V

WSTM SITE COORDINATES
 45°45'1.60 FEET E
 464023.05 FEET N

PRESSURE MILLIBARS	GEO METRIC ALTITUDE MSL FEET	TEMPERATURE		REL.HUM. PERCENT
		AIR DEWPOINT DEGREES	CENTIGRADE	
882.6	4051.0	-1.4	-5.4	74.0
372.1	4363.6	-2.6	-5.7	79.0
864.2	4547.9	-2.2	-5.5	78.0
856.6	4832.8	.8	-8.4	50.0
850.0	5037.2	1.8	-8.6	48.0
821.6	5936.1	1.2	-9.4	45.0
779.2	7330.0	-1.2	-11.3	46.0
700.0	10141.0	-.6	-10.8	46.0
655.8	11851.9	-1.2	-14.0	37.0
617.0	13440.6	-4.3	-17.8	34.0
539.4	16872.8	-11.9	-19.5	51.0
500.0	18770.1	-15.2	-24.4	45.0
456.6	21005.3	-20.1	-30.7	38.0
400.0	24177.2	-28.7	-38.0	40.0
325.2	28924.3	-41.7	-45.7	41.0
300.0	30704.5	-46.7		
276.4	32473.9	-51.6		
250.0	34591.9	-57.1		
240.0	35935.8	-58.5		
231.6	36182.4	-55.6		
202.6	38951.7	-61.5		
200.0	39216.6	-59.7		
192.0	40000.1	-58.3		
155.6	44370.4	-65.6		
150.0	45082.0	-63.9		
137.0	46927.4	-60.7		
120.8	49501.1	-62.0		
108.4	51689.5	-65.9		
100.0	53307.1	-65.2		
86.0	56317.8	-67.9		

STATION ALTITUDE 4051.00 FEET MSL
 7 DEC. 76 1000 HRS MST
 ASCENSION NO. 396

SIGNIFICANT LEVEL DATA
 3420030396
 JALLEN
 TABLE V (CONT)

WEST SITE COORDINATES
 45C451.60 FEET E
 464023.05 FEET N

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE FEET	TEMPERATURE		REL.HUM. PERCENT
		AIR DEGREES	DEW POINT CENTIGRADE	
70.0	60411.2	-66.9		
64.5	62043.8	-66.7		
60.4	63366.4	-63.1		
55.2	65186.1	-65.2		
50.0	67189.7	-62.4		
47.2	68362.7	-63.1		
43.0	70273.5	-59.4		
39.8	71865.0	-61.6		
36.0	77747.4	-54.7		
21.8	84498.3	-55.6		
20.0	86317.6	-52.6		
16.4	90595.4	-48.9		
12.8	94317.8	-52.6		
10.0	101255.9	-48.9		
8.9	103812.6	-47.1		

UPPER AIR DATA
3420030396
JALLEN
7 DEC. 76 1000 HRS MST
ASCENSION NO. 396

STATION ALTITUDE 4051.00 FEET MSL
1000 HRS MST
JALLEN
TABLE VI

WSTM SITE COORDINATES
45491.60 FEET E
464023.05 FEET N

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	DEWPOINT DEGREES	REL.HUM. PERCENT	SPEED OF SOUND METER	WIND DATA
						INDEX OF REFRACTION
4051.0	882.6	-1.4	-5.4	74.0	1125.5	1.000272
4500.0	867.6	-2.4	-5.6	78.4	1114.2	2.6
5000.0	851.2	1.6	-8.5	46.7	1077.7	1.000269
5500.0	835.3	1.5	-9.0	45.5	1058.0	5.2
6000.0	819.6	1.1	-9.5	45.0	1039.7	1.000266
6500.0	804.2	2.2	-10.2	45.4	1022.4	1.000247
7000.0	789.0	-6	-10.9	45.8	1007.4	1.000242
7500.0	774.2	-1.2	-11.2	46.0	990.3	1.000238
8000.0	759.5	-1.1	-11.2	46.0	971.2	1.000234
8500.0	745.2	-1.0	-11.1	46.0	952.5	1.000230
9000.0	731.1	-0.8	-11.0	46.0	934.1	25.7
9500.0	717.3	-0.7	-10.6	46.0	916.0	25.7
10000.0	703.8	-0.6	-10.8	46.0	898.3	1.000226
10500.0	690.5	-0.7	-11.4	44.1	881.7	1.000222
11000.0	677.4	-0.9	-12.3	41.5	865.7	1.000218
11500.0	664.7	-1.1	-13.3	38.5	851.0	1.000214
12000.0	652.1	-1.5	-14.3	36.7	835.2	27.5
12500.0	639.7	-2.5	-15.5	35.8	822.4	30.7
13000.0	627.5	-3.4	-16.7	34.8	811.7	33.5
13500.0	615.5	-4.4	-17.8	34.3	801.0	35.2
14000.0	603.6	-5.5	-17.9	36.7	785.1	36.1
14500.0	591.9	-6.6	-18.2	35.2	773.0	35.4
15000.0	580.4	-7.8	-18.5	34.7	761.2	35.1
15500.0	569.2	-8.9	-18.8	34.2	750.1	35.1
16000.0	558.7	-10.0	-19.2	46.7	738.1	35.5
16500.0	547.3	-11.1	-19.6	46.2	726.5	36.6
17000.0	536.7	-12.1	-20.2	50.6	715.6	39.5
17500.0	526.0	-13.5	-21.4	46.0	703.8	41.5
18000.0	515.6	-13.9	-22.6	47.4	692.3	43.5
18500.0	505.4	-14.7	-23.8	45.9	680.9	45.1

STATION ALTITUDE 4051.00 FEET MSL
7 DEC. 76 1000 HRS MST
ASCENSION NO. 396

UPPER AIR DATA
3420030396
JALLEN
TABLE VI (CONT.)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE DEGREES CENTIGRADE	AIR DEWPOINT PERCENT	REL. HUM. PERCENT	WIND DATA		INDEX OF REFRACTION
					CM/CUBIC METER	SOUND KNOTS	
19000.0	495.4	-15.7	-25.1	94.3	66.6	625.3	1.000154
19500.0	495.4	-16.8	-26.5	92.7	659.3	623.9	45.2
20000.0	475.6	-17.9	-27.9	91.1	648.8	622.6	43.2
20500.0	466.1	-19.0	-29.3	39.6	638.5	621.2	1.000148
21000.0	456.7	-20.1	-30.7	38.0	628.4	615.9	41.0
21500.0	447.3	-21.4	-31.8	38.3	618.8	618.2	39.8
22000.0	438.0	-22.8	-33.0	38.6	605.3	616.5	40.2
22500.0	429.0	-24.2	-34.1	78.9	600.0	614.8	40.9
23000.0	420.1	-25.5	-35.3	36.3	590.6	613.1	41.1
23500.0	411.5	-26.9	-36.4	39.6	581.9	611.5	40.9
24000.0	403.0	-28.2	-37.6	39.9	573.0	608.8	40.4
24500.0	394.4	-29.6	-38.8	40.1	564.0	608.1	39.6
25000.0	385.9	-31.0	-40.0	40.2	555.0	606.3	38.5
25500.0	377.6	-32.3	-41.2	40.3	546.1	604.6	38.7
26000.0	369.4	-33.7	-42.5	40.4	537.4	602.9	39.6
26500.0	361.5	-35.1	-43.7	40.5	528.8	601.2	38.6
27000.0	353.7	-36.4	-44.9	40.6	520.4	599.4	38.5
27500.0	346.0	-37.8	-46.2	40.7	512.2	597.7	38.8
28000.0	338.6	-39.2	-47.4	40.8	504.0	595.9	39.6
28500.0	331.3	-40.5	-48.6	40.9	496.1	594.2	38.5
29000.0	324.1	-41.9	-50.3	39.3**	488.2	592.4	37.4
29500.0	316.8	-43.3	-54.4	27.7**	480.2	589.6	37.4
30000.0	309.7	-44.7	-59.9	16.2**	472.3	588.8	41.2
30500.0	302.8	-46.1	-70.0	9.7**	464.6	587.0	41.7
31000.0	295.9	-47.5			456.9	585.2	39.4
31500.0	288.2	-48.0			448.2	583.4	42.1
32000.0	282.5	-50.3			441.6	581.6	42.7
32500.0	276.1	-51.7			434.2	579.8	43.6
33000.0	269.5	-53.0			426.5	578.1	46.0
33500.0	263.7	-54.2			418.4	576.4	48.4

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

SATION ALTITUDE 4051.00 FEET MSL
 7 DEC. 7F 1000 HRS MST
 ASCENSION NO. 396

UPPER AIR DATA
 3420030396
 JALLEN
 TABLE VI (CONT)

WSTM SITE COORDINATES
 45C491.60 FEET E
 464023.05 FEET N

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREE CENTIGRADE	DEWPOINT DEGREES CENTIGRADE	REL.HUM. PERCENT	SOUND METER	DENSITY CM/CUBIC METER	SPEED OF WIND DATA	INDEX OF REFRACTION
34000.0	267.1	-55.6	411.6	574.7	257.7	49.0	1.000002	
34500.0	251.1	-56.9	404.4	572.9	357.2	50.5	1.000090	
35000.0	245.1	-57.8	396.5	571.7	355.0	49.5	1.000068	
35500.0	239.3	-58.3	388.0	571.1	351.6	48.2	1.000066	
36000.0	233.6	-56.3	375.4	573.7	347.5	47.1	1.000068	4
36500.0	228.1	-56.3	366.4	573.7	349.5	45.6	1.000062	
37000.0	222.6	-57.3	359.4	572.3	341.6	44.1	1.000080	
37500.0	217.3	-58.4	352.5	570.6	338.1	42.6	1.000075	
38000.0	212.1	-59.5	345.8	569.5	333.8	41.0	1.000077	
38500.0	207.1	-60.5	338.3	568.1	329.1	39.7	1.000076	
39000.0	202.1	-61.2	332.2	567.2	322.9	39.3	1.000074	
39500.0	197.3	-59.2	321.3	569.8	316.7	38.4	1.000072	
40000.0	192.6	-58.4	312.4	570.9	311.3	39.1	1.000070	
40500.0	187.9	-59.0	305.7	570.0	306.2	38.6	1.000068	
41000.0	183.3	-59.9	299.5	568.9	302.1	39.1	1.000067	
41500.0	178.9	-60.7	293.4	567.8	298.9	39.3	1.000065	
42000.0	174.6	-61.6	287.4	566.7	297.1	40.5	1.000064	
42500.0	170.3	-62.4	281.6	565.5	296.5	42.4	1.000063	
43000.0	166.2	-63.3	275.9	564.4	296.6	44.3	1.000061	
43500.0	162.2	-64.1	270.3	563.2	297.5	46.1	1.000060	
44000.0	158.3	-65.0	264.8	562.1	298.0	47.5	1.000059	
44500.0	154.4	-65.2	258.6	561.7	297.9	47.8	1.000058	
45000.0	150.6	-64.1	251.0	563.3	297.6	48.2	1.000056	
45500.0	147.0	-63.2	243.8	564.5	295.7	48.6	1.000054	
46000.0	143.4	-62.3	236.9	565.7	293.9	49.6	1.000053	
46500.0	139.9	-61.4	230.2	566.8	291.8	51.2	1.000051	
47000.0	136.5	-60.7	223.9	567.8	289.9	52.8	1.000050	
47500.0	133.2	-61.0	218.7	567.5	285.9	54.1	1.000049	
48000.0	130.0	-61.2	213.7	567.1	290.3	55.2	1.000048	
48500.0	127.0	-61.5	208.8	566.8	292.2	55.7	1.000047	

STATION ALTITUDE 4051.00 FEET MSL
7 DEC. 76 1000 HRS MST
ASCENSION NO. 396

UPPER AIR DATA
3420030396
JALLEN

TABLE VI (CONT)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL.HUM. PERCENT	SOUND METER KNOTS	WIND DATA		INDEX OF REFRACTION
					DEWPOINT CENTIGRADE	GM/CUBIC METER	
49000.0	123.8	-61.7	204.0	566.4	294.7	56.1	1.000045
49500.0	120.8	-62.0	199.3	566.1	297.4	56.1	1.000044
50000.0	117.9	-62.9	195.2	564.5	300.4	55.5	1.000043
50500.0	115.0	-63.8	191.3	563.7	303.4	54.7	1.000043
51000.0	112.2	-64.7	187.4	562.5	306.2	52.6	1.000042
51500.0	109.4	-65.6	183.6	561.3	309.2	50.6	1.000041
52000.0	106.7	-65.8	179.3	561.0	310.3	46.7	1.000040
52500.0	104.1	-65.5	174.7	561.3	311.2	42.4	1.000039
53000.0	101.5	-65.3	170.2	561.6	312.5	38.1	1.000038
53500.0	99.0	-65.4	166.0	561.6	304.8	33.8	1.000037
54000.0	96.6	-65.8	162.2	561.0	298.8	30.6	1.000036
54500.0	94.2	-66.3	158.6	560.3	292.3	30.8	1.000035
55000.0	91.9	-66.7	155.0	555.7	266.7	31.2	1.000035
55500.0	89.6	-67.2	151.5	559.1	286.1	32.9	1.000034
56000.0	87.4	-67.6	148.1	556.5	285.5	34.5	1.000033
56500.0	85.2	-67.9	144.6	558.2	288.1	35.0	1.000032
57000.0	83.1	-67.7	140.9	556.4	290.5	35.5	1.000031
57500.0	81.0	-67.6	137.3	558.5	292.5	35.6	1.000031
58000.0	78.9	-67.5	133.9	556.7	294.9	35.6	1.000030
58500.0	77.1	-67.4	130.5	558.9	296.5	35.4	1.000029
59000.0	75.1	-67.2	127.1	556.0	299.0	34.6	1.000028
59500.0	73.3	-67.1	123.9	556.2	301.7	33.5	1.000028
60000.0	71.5	-67.0	120.8	559.4	304.8	39.0	1.000027
60500.0	69.7	-66.9	117.7	562.5	307.8	34.2	1.000026
61000.0	68.0	-66.8	114.8	559.6	307.6	32.3	1.000026
61500.0	66.3	-66.8	111.9	562.7	305.2	29.1	1.000025
62000.0	64.6	-66.7	109.1	559.8	300.8	25.5	1.000024
62500.0	63.1	-65.5	105.8	561.4	292.6	21.5	1.000024
63000.0	61.5	-64.1	102.5	563.3	282.9	19.1	1.000023
63500.0	60.3	-63.3	99.6	564.4	280.2	21.7	1.000022

STATION ALTITUDE 4051.00 FEET MSL
7 DEC. 76 1000 HRS MST
ASCENSION ISL. 296

UPPER AIR DATA
3420030356
JALLEN
TABLE VI (CONT)

WSIW SITE COORDINATES
450491.60 FEET E
464023.05 FEET N

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	DEWPOINT PERCENT	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SOUND DECRESSTM	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
64000.0	58.5	-53.8	97.4	563.6	278.0	24.4	1.000022		
64500.0	57.1	-54.4	95.3	562.9	275.2	25.2	1.000021		
65000.0	55.7	-55.0	93.2	562.1	280.4	25.9	1.000021		
65500.0	54.4	-54.6	92.9	562.4	283.4	25.6	1.000020		
66000.0	53.0	-54.1	88.3	563.3	287.9	24.5	1.000020		
66500.0	51.7	-53.4	85.9	564.3	291.4	23.2	1.000019		
67000.0	50.5	-52.7	83.5	565.2	288.3	20.3	1.000019		
67500.0	49.2	-52.6	81.5	565.3	284.2	17.5	1.000018		
68000.0	48.0	-52.9	79.6	564.9	276.6	15.1	1.000018		
68500.0	47.9	-52.8	77.7	565.0	276.0	13.2	1.000017		
69000.0	45.8	-51.9	75.4	566.3	260.1	12.8	1.000017		
69500.0	44.7	-50.9	73.3	567.6	266.5	14.6	1.000016		
70000.0	43.6	-50.9	71.2	568.9	271.5	16.5	1.000016		
70500.0	42.5	-50.7	69.4	569.2	273.3	19.6	1.000015		
71000.0	41.5	-50.4	68.0	568.2	274.3	22.9	1.000015		
71500.0	40.5	-51.1	66.6	567.3	274.8	25.6	1.000015		
72000.0	39.5	-51.4	65.1	566.8	274.7	26.6	1.000014		
72500.0	38.6	-50.9	63.3	567.6	274.6	27.1	1.000014		
73000.0	37.7	-50.3	61.7	568.4	273.8	27.4	1.000014		
73500.0	36.8	-50.7	60.0	569.2	272.8	26.4	1.000013		
74000.0	35.9	-50.1	58.5	570.0	271.8	25.7	1.000013		
74500.0	35.1	-50.5	56.9	570.8	272.7	26.7	1.000013		
75000.0	34.2	-50.9	55.4	571.5	272.7	27.8	1.000012		
75500.0	33.4	-51.3	53.9	572.3	271.7	28.2	1.000012		
76000.0	32.5	-51.7	52.5	573.1	269.4	28.1	1.000012		
76500.0	31.9	-52.2	51.1	573.9	267.1	28.1	1.000011		
77000.0	31.1	-52.6	49.8	574.6	263.2	27.2	1.000011		
77500.0	30.4	-53.0	48.5	575.4	258.9	26.5	1.000011		
78000.0	29.6	-54.7	47.3	575.8	254.2	25.5	1.000011		
78500.0	28.9	-54.8	46.2	575.7	247.7	23.8	1.000010		

STATION ALTITUDE 40°1.00 FEET MSL
7 DEC. 76 1000 HRS MST
ASCENSTCN NC. 796

UPPER AIR DATA
3920030346
JALLEN
TABLE VI (CONT)

WESTM SITE COORDINATES
450491.60 FEET E
464C23.05 FEET N

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEWPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM CUBIC METER	SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
79000.0	28.3	-54.9	45.1	575.6	240.4	22.3	1.000010	
79500.0	27.6	-54.9	44.1	575.5	234.0	21.4	1.000010	
80000.0	27.0	-55.0	43.1	575.4	229.1	20.6	1.000010	
80500.0	26.3	-55.1	42.1	575.3	223.9	20.0	1.000009	
81000.0	25.7	-55.1	41.1	575.2	233.0	20.4	1.000008	
81500.0	25.1	-55.2	40.1	575.1	245.4	21.9	1.000009	
82000.0	24.5	-55.3	39.2	575.1	255.7	24.4	1.000008	
82500.0	24.0	-55.3	38.3	575.0	261.6	27.7	1.000009	
83000.0	23.4	-55.4	37.4	574.9	266.2	31.2	1.000008	
83500.0	22.8	-55.5	36.6	574.8	267.9	34.1	1.000008	
84000.0	22.3	-55.5	35.7	574.7	265.0	34.6	1.000008	
84500.0	21.8	-55.6	34.9	574.6	262.2	35.6	1.000008	
85000.0	21.3	-54.8	33.9	575.7	261.4	36.8	1.000008	
85500.0	20.8	-53.9	33.0	576.8	261.9	38.2	1.000007	
86000.0	20.3	-53.1	32.1	577.9	262.3	39.5	1.000007	
86500.0	19.8	-52.4	31.3	578.8	266.3	41.5	1.000007	
87000.0	19.4	-52.0	30.5	579.3	270.7	43.8	1.000007	
87500.0	18.9	-51.6	29.8	579.9	274.6	46.3	1.000006	
88000.0	18.5	-51.1	29.0	580.5	277.8	47.0	1.000006	
88500.0	18.1	-50.7	28.3	581.0	280.9	47.7	1.000006	
89000.0	17.7	-50.3	27.6	581.6	283.9	48.5	1.000006	
89500.0	17.3	-49.8	26.9	582.7	283.7	46.7	1.000006	
90000.0	16.9	-49.4	26.3	582.7	281.8	43.6	1.000006	
90500.0	16.5	-49.0	25.6	583.3	279.7	40.6	1.000006	
91000.0	16.1	-49.3	25.0	582.9	276.8	38.0	1.000006	
91500.0	15.7	-49.8	24.5	582.7	272.8	36.2	1.000005	
92000.0	15.4	-50.2	24.0	581.6	268.4	34.6	1.000005	
92500.0	15.0	-50.8	23.5	580.9	264.1	33.3	1.000005	
93000.0	14.7	-51.2	23.0	580.3	264.2	32.6	1.000005	
93500.0	14.3	-51.8	22.5	579.6	254.2	31.9	1.000005	

STATION ALTITUDE 4051.00 FEET MSL
 7 DEC. 76 1000 HRS MST
 ASCENSION N.C. 296

UPPER AIR DATA
 342003C396
 JALLEN
 TABLE VI (CONT)

GEOMETRIC PRESSURE ALTITUDE MSL FEET	TEMPERATURE AIR DEWPOINT DEGREES DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	WIND DATA DIRECTION DEGREES (TN) KNOTS	WIND DATA INDEX OF REFRACTION
94000.0	14.0 -52.3	22.1	579.0	264.3	1.000005
94500.0	13.7 -52.5	21.6	578.7	265.1	1.000005
95000.0	13.4 -52.2	21.1	579.0	255.9	1.000005
95500.0	13.1 -52.0	20.6	579.4	266.6	1.000005
96000.0	12.8 -51.7	20.1	579.7	269.2	1.000004
96500.0	12.5 -51.4	19.6	580.1	273.1	1.000004
97000.0	12.2 -51.2	19.1	580.4	276.6	1.000004
97500.0	11.9 -50.9	18.7	580.8	279.1	1.000004
98000.0	11.6 -50.6	19.2	581.1	279.9	1.000004
98500.0	11.4 -50.4	17.8	581.5	280.6	1.000004
99000.0	11.1 -50.1	17.3	581.9	281.3	1.000004
99500.0	10.9 -49.8	16.9	582.2	277.8	1.000004
100000.0	10.6 -49.6	16.5	582.5	274.5	1.000004
100500.0	10.4 -49.3	16.1	582.9	271.5	1.000004
101000.0	10.1 -49.0	15.7	583.2		1.000004
101500.0	9.9 -48.7	15.4	583.6		1.000003
102000.0	9.7 -48.4	15.0	584.1		1.000003
102500.0	9.5 -48.1	14.6	584.5		1.000003
103000.0	9.2 -47.7	14.3	585.0		1.000003
103500.0	9.0 -47.3	13.9	585.4		1.000003

STATION ALTITUDE 4000.00 FEET MSL
 7 DEC. 76 1000 HRS MST
 ASCENSION ISL. 196

MANDATORY LEVELS
 342003C356
 JALLEN
 TABLE VII

WSTM SITE COORDINATES
 450491.60 FEET E
 464C23.05 FEET N

PRESSURE MILLIBARS	GEOPOTENTIAL FEET	TEMPERATURE			REL. HUM. PERCENT	WIND DATA DIRECTION DEGREES (TR)	SPEED KNOTS
		AIR DEGREES	DEWPNT CENTIGRACE	PERCENT			
850.0	5035.0	1.8	-8.6	46.	324.2	5.4	
800.0	6638.0	-0.0	-10.4	46.	305.9	14.6	
750.0	8326.0	-1.0	-11.1	46.	336.3	26.1	
700.0	10135.0	-0.6	-10.8	46.	328.9	28.5	
650.0	12076.0	-1.7	-14.5	37.	246.3	36.1	
600.0	14150.0	-5.9	-18.0	28.	252.0	35.2	
550.0	16366.0	-10.8	-19.5	49.	343.0	38.4	
500.0	18750.0	-15.2	-24.4	45.	336.7	45.8	
450.0	21334.0	-21.0	-31.5	38.	338.4	39.8	
400.0	24145.0	-26.7	-38.0	40.	325.2	40.2	
350.0	27229.0	-37.1	-45.5	41.	340.7	37.4	
300.0	30655.0	-46.7	-46.7	352.6	41.9		
250.0	34529.0	-57.1	-57.1	356.8	50.3		
200.0	39137.0	-59.7	-59.7	320.3	39.3		
175.0	41977.0	-61.5	-61.5	297.1	40.3		
150.0	44977.0	-62.9	-62.9	257.3	48.3		
125.0	48687.0	-61.6	-61.6	293.7	55.9		
100.0	53162.0	-65.2	-65.2	305.9	35.5		
80.0	57584.0	-67.5	-67.5	293.9	35.6		
70.0	60227.0	-66.9	-66.9	307.2	34.2		
60.0	63298.0	-63.3	-63.3	280.2	21.7		
50.0	66963.0	-62.4	-62.4	287.0	29.3		
40.0	71554.0	-51.5	-51.5	274.8	26.1		
30.0	77446.0	-54.7	-54.7	256.9	26.1		
25.0	81269.0	-55.2	-55.2	247.3	22.3		
20.0	85440.0	-52.0	-52.0	264.6	40.6		
15.0	92105.0	-50.9	-50.9	264.1	33.3		
10.0	100764.0	-48.9	-48.9				

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 4051.00 FEET MSL
7 DEC. 76 1330 HRS MST
ASCENSION NO. 197

SIGNIFICANT LEVEL DATA
3420030397
JALLEN
TABLE VIII

WSTM SITE COORDINATES
45C451.60 FEET E
464023.05 FEET N

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE FEET	TEMPERATURE DEGREES	AIR DEWPOINT CENTIGRADE	REL.HUM. PERCENT
880.0	4051.0	8.8	-4.7	39.0
850.0	5014.7	7.0	-7.0	36.0
790.8	6950.2	3.4	-5.5	38.0
768.0	7729.0	3.0	-9.3	40.0
715.4	9606.5	1	-11.2	42.0
700.0	10181.7	2.2	-11.0	37.0
640.8	12107.5	0	-13.3	36.0
578.4	15181.6	-5.2	-18.9	33.0
500.0	18879.8	-14.0	-26.4	34.0
427.8	22711.8	-22.2	-34.3	32.0
400.0	24322.1	-26.7	-37.8	34.0
358.2	26905.7	-33.8	-43.6	36.0

STATION ALTITUDE 4000.00 FEET MSL
7 DEC. 75
ASCENSION NO. 397

UPPER AIR DATA
3420033357
JALLEN

TABLE IX

WEST SITE COORDINATES
45°45'1.60 FEET E
464023.05 FEET N

GEOMETRIC ALTITUDE MILL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF WIND DATA KNOTS	CIRECTION DEGREE(S) (TN)	INDEX OF REFRACTION
4051.0	880.8	8.8	-4.7	1.086.3	F54.8	120.0	4.1
4500.0	866.3	8.0	-5.8	1071.7	653.7	56.8	1.6
5000.0	850.5	7.0	-7.0	1055.7	652.6	245.9	4.2
5500.0	834.8	6.1	-7.6	1039.7	651.5	335.1	8.2
6000.0	816.3	5.2	-8.3	1024.5	F50.4	235.1	10.6
6500.0	804.7	4.2	-9.0	1008.5	649.3	338.5	12.2
7000.0	786.3	3.4	-9.5	993.0	F48.3	245.0	14.7
7500.0	774.6	3.1	-9.3	975.4	648.0	351.1	17.6
8000.0	760.2	2.6	-9.5	956.0	647.4	257.1	21.1
8500.0	746.9	1.8	-10.1	943.7	646.5	1.9	22.9
9000.0	732.0	1.0	-10.6	914.4	F28.7	7.0	22.6
9500.0	718.3	0.3	-11.1	913.9	644.6	10.5	21.3
10000.0	704.8	1.5	-11.0	892.6	F46.1	13.2	19.0
10500.0	691.6	1.8	-11.3	876.8	974.9	646.5	10.7
11000.0	676.7	1.3	-11.6	866.6	F46.4	F45.8	23.0
11500.0	665.9	0.7	-12.5	863.3	946.0	645.1	359.3
12000.0	653.5	0.1	-13.1	861.1	F31.0	644.4	255.3
12500.0	641.1	-0.7	-14.0	856.5	913.6	643.5	352.4
13000.0	629.0	-1.5	-14.6	852.1	905.6	642.5	250.2
13500.0	616.9	-2.4	-15.8	846.5	792.8	641.4	343.9
14000.0	605.2	-3.2	-16.7	840.2	780.2	640.4	338.2
14500.0	593.7	-4.0	-17.7	837.7	767.9	539.4	334.3
15000.0	582.4	-4.9	-18.6	835.2	755.7	638.4	332.6
15500.0	571.2	-5.8	-19.6	831.1	744.1	637.1	331.9
16000.0	560.1	-6.0	-20.6	829.2	732.5	F35.6	332.1
16500.0	549.1	-8.3	-21.6	823.4	721.9	634.7	333.9
17000.0	538.4	-6.5	-22.6	822.5	711.0	F32.8	334.5
17500.0	527.9	-10.7	-23.6	821.5	700.5	631.3	332.6
18000.0	517.6	-11.0	-24.6	822.8	F29.8	F29.9	332.7
18500.0	507.5	-13.1	-25.6	823.9	679.5	628.4	332.7

STATION ALTITUDE 4051.00 FEET MSL
7 DEC. 76 1330 HRS MST
ASCENSION NO. 397

UPPER AIR DATA
3420030397
JALLEN

WSTM SITE COORDINATES
45C491.60 FEET E
464023.05 FEET N

TABLE IX (CONT.)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	ACCELERATION GRAVITY	SPEED OF SOUND METER KNOTS	WIND DIRECTION DEGREES (TN)	WIND SPEED KNOTS	INDEX OF REFRACTION
19700.0	997.6	-14.3	73.6	964.2	627.5	334.9	35.2	1.000153
19500.0	997.5	-15.3	73.7	958.4	625.7	337.5	34.6	1.000150
20100.0	977.7	-16.4	73.4	947.9	624.4	337.8	34.0	1.000148
20500.0	969.1	-17.5	73.2	937.5	623.1	338.6	33.9	1.000145
21700.0	958.7	-18.5	72.9	927.3	621.8	334.2	33.7	1.000142
21500.0	949.4	-19.6	72.6	917.3	620.4	331.7	34.1	1.000140
22200.0	940.4	-20.7	72.4	907.4	619.1	330.7	34.5	1.000138
22500.0	931.5	-21.7	72.1	597.7	617.8	329.7	35.7	1.000135
23000.0	922.7	-23.0	72.4	588.5	616.2	328.5	36.7	1.000133
23500.0	914.0	-24.4	73.0	579.6	614.5	327.0	37.5	1.000131
24000.0	905.4	-25.8	73.6	570.8	612.8	324.8	38.0	1.000129
24500.0	397.0	-27.2	74.1	562.1	611.0	323.9	37.2	1.000127
25000.0	388.6	-28.6	74.5	553.4	609.7	324.0	35.4	1.000125
25500.0	380.4	-29.9	74.9	544.7	607.5	325.8	34.7	1.000122
26000.0	372.3	-31.3	75.3	536.2	605.9	327.0	34.0	1.000120
26500.0	354.5	-32.7	75.7	527.9	604.2	328.0	33.3	1.000118

STATION ALTITUDE 4051.00 FEET MSL
 7 DEC 7F 1330 HRS MST
 ASCENSION NO. 397

MANDATORY LEVELS
 3420030397
 JALLEN

WSTM SITE COORDINATES
 45C491.6C FEET E
 464023.05 FEET N

TABLE X

MILLIBARS	PRESSURE FEET	GEOPOTENTIAL	TEMPERATURE AIR	DEWPONT	REL.HUM. PERCENT	WIND DATA	
						DIRECTION DEGREE STTN)	SPEED KNOTS
850.0	5013.	7.0	-7.0	36.	345.3	4.4	
800.0	6639.	4.0	-9.1	38.	340.6	12.9	
750.0	8254.	2.0	-8.5	41.	340.5	22.9	
700.0	10175.	2.2	-11.0	37.	12.3	19.7	
650.0	12131.	-1	-13.3	35.	354.3	26.7	
600.0	14220.	-3.6	-17.2	34.	336.4	24.2	
550.0	16458.	-8.2	-21.5	32.	333.9	29.5	
500.0	18950.	-14.0	-26.4	34.	334.3	35.3	
450.0	21457.	-19.5	-31.8	33.	331.7	34.1	
400.0	24290.	-26.7	-37.8	34.	323.9	37.8	